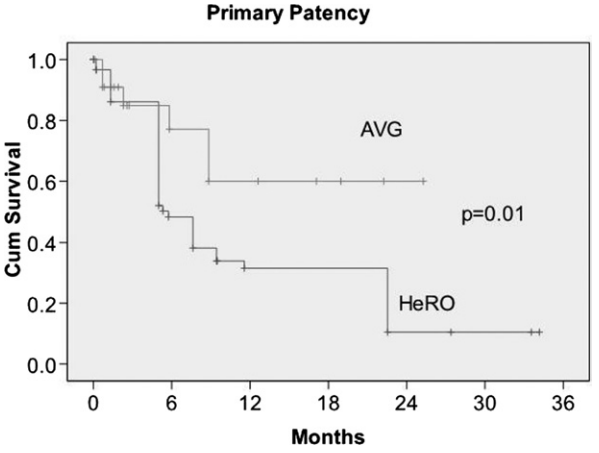

Fig.

low-up was 14.6 months. The HeRO patients underwent a mean of 6.4 previous TDCs and 3.1 previous AVG/AVFs. The LEAVG patients underwent a mean of 4.1 previous TDCs and 2.8 previous AVG/AVFs. The principal difference was a 1 year primary patency of 26% for the HeRO group and 60% for the LEAVG group ($P = .01$). The number of interventions to maintain patency was 6.2 per year in the HeRO group and 3.7 per year in the AVG group ($P = .40$). Secondary patency at 1 year was 61% for the HeRO patients and 66% for the AVG patients ($P = .56$). The HeRO group and LEAVG had no difference in infection rate (31% vs. 30%) or mortality rate (33% vs 21% respectively) at 1 year.

Conclusions: In access challenged patients, LEAVG and HeRO offer a higher incidence of infection, mortality and loss of patency compared to traditional upper extremity access. The LEAVG offers improved primary patency rate over the HeRO device.

Author Disclosures: M. Glickman: Nothing to disclose; **J. A. Higgins:** Nothing to disclose; **C. Kim:** Nothing to disclose; **A. Mirza:** Nothing to disclose; **J. M. Panneton:** Nothing to disclose; **J. Pavela:** Nothing to disclose; **S. N. Steerman:** Nothing to disclose; **J. Wagner:** Nothing to disclose.

VS6.

Video Presentation

Percutaneous Thrombectomy of a Dialysis Graft in the Office Setting

Krishna Jain[1], John Munn[2], Mark Rummel[2], Dan Johnston[2], Chris Longton[2]. [1]Advanced Vacular Surgery, Kalamazoo, MI; [2]Advanced Vascular Surgery, Kalamazoo, MI

Background: With the advent of endovascular techniques thrombectomy of occluded dialysis graft can be carried out percutaneously. Over the last few years various devices have been approved for mechanical thrombectomy of dialysis graft. We describe a technique that we have developed without using these devices, in our office based endovascular suite.

Technical Description: Patient is given hydrocodone 5 mg, Diazepam 5 mg and Cefazolin 500 mg orally before the procedure. Patient is not fasting. After prepping and draping the extremity Xylocaine 1% is infiltrated in the skin. Crossing micro puncture needles are introduced into the graft pointing towards each anastomosis. Guide wires are threaded through the needles. Needles are removed and micro puncture sheaths are threaded over the guide wires. Fistulogram is done to confirm the thrombosis and to make sure the catheters are in the lumen. Two ml of tissue plasminogen activator is introduced through each catheter. After 15 minutes glide wires are threaded through each sheath and these are switched to 6 French sheaths. The glidewires should cross both anastomoses. Five French embolectomy catheter is threaded over the arterial wire and clot is pulled out of the arterial side and flushed out of the side port of the sheath. Same procedure is carried out on venous side. Fistulogram is performed and the procedure is repeated until there is no residual clot. Invariably there is stenosis present at the graft vein anastomosis or in the graft circuit. Rarely there is arterial stenosis. If it is a 6mm graft 8mm balloon is used to dilate the area of stenosis at the graft vein anastomosis. The sheaths and guide wires are removed and puncture sites are closed with nylon suture. the graft can be used immediately. A similar procedure can be used for a fistula.

Author Disclosures: K. Jain: Nothing to disclose; **D. Johnston:** Nothing to disclose; **C. Longton:** Nothing to disclose; **J. Munn:** Nothing to disclose; **M. Rummel:** Nothing to disclose.

SS24.

Hemodialysis A and Age-Related Postoperative Outcomes: Which Fistula First?

Steven Abramowitz, Angela A. Kokkosis, Jonathan Schwitzer, Harry Schanzer, Victoria Teodorescu. Mount Sinai Medical Center, New York, NY

Objectives: The National Kidney Foundation recommends the preferential creation of radiocephalic fistulas (RCF) over that of brachiocephalic fistulas (BCF) for hemodialysis access. This study tested the hypothesis that RCF creation in patients greater than 68 years of age may result in a more postoperative complications.

Methods: A total of 287 patients older than 68 years of age with preoperative vein mapping and regular follow up after creation of arteriovenous fistula constituted this retrospective study. Within this group, 164 patients underwent RCF creation and 123 underwent BCF creation. Medical records were analyzed for the number of central venous catheter days, the number of fistula related procedures recorded and the number of access related hospitalizations for each patient. Bivariate analysis using linear modeling and one-way analysis of variance was used to assess cohort differences.

Results: Among patients who underwent creation of BCF, the average number of central venous catheter days was 53.3 days per patient, the average number of fistula related

procedures recorded was 0.6 per patient and the number of hemodialysis related hospitalizations was 0.3 per patient. Among patients who underwent creation of RCF, the average number of central venous catheter days was 83.4 days per patient, the average number of fistula related procedures recorded was 1.8 per patient and the average number of hemodialysis related hospitalizations was 0.8 per patient. There was a statistically significant difference postoperative course between those patients who underwent BCF versus RCF creation.

Conclusions: Patients greater than 68 years of age who undergo RCF creation may have a greater likelihood of increased central venous catheter days, a greater number of hospitalizations related to hemodialysis access and a greater number of postoperative procedures than those who undergo BCF creation.

Author Disclosures: S. Abramowitz: Nothing to disclose; **A. A. Kokkosis:** Nothing to disclose; **H. Schanzer:** Nothing to disclose; **J. Schwitzer:** Nothing to disclose; **V. Teodorescu:** Nothing to disclose.

C9a: Poster Session - Aortic Disease (1)

PS2.

Fenestrated/Branched Endovascular Aortic Repair (FEVAR) for Chronic Type B Aortic Dissection with Thoracoabdominal Aneurysms (TAAA)

Atsushi Kitagawa[1], Roy K. Greenberg[1], Matthew J. Eagleton[1], Tara M. Mastracci[1], Eric Roselli[2]. [1]Cleveland Clinic Department of Vascular Surgery, Cleveland, OH; [2]Cleveland Clinic Department of Thoracic Surgery, Cleveland, OH

Objectives: Treatment of patients with arch, TAAA and chronic dissection is challenging.We report the results of FEVAR of such aneurysms.

Methods: A single center prospective FEVAR trial enrolled 356 patients(2006-11), of which 29 had chronic dissections with arch and/or TAAA. Patients were divided into a group with extensive dissections from the arch through the visceral segment(Group A, n = 15, mean age 57y), and a group with focal dissections(Group B, n = 14, mean age 73y).Customized grafts were implanted into the true lumen, from which all supra-aortic trunk(arch branch devices) and visceral vessels were supplied.Patients were followed annually with imaging and laboratory studies.Outcome analyses included survival, rupture, spinal cord ischemia, endoleak, morbidity(cardiac, renal, pulmonary), secondary interventions, dissection and aneurysm growth.

Results: Mean time between dissection and FEVAR was 10.6 years, and aneurysm size was 61mm. Follow-up averaged 1.7 years. There were no perioperative mortalities, and one aortic related death at 90 days due to progression of pre-existing untreated arch dissection. No ruptures, cardiac, renal, paraplegia or pulmonary complications occurred. Despite narrow true lumen dimensions, stentgrafts expanded to their nominal diameters in all cases without graft compression. Post FEVAR growth was noted in two cases (one Marfan/one LDS), related to type II endoleaks. Sac regression was similar (−7.5mm vs −10.1mm). Early secondary interventions were more common in group A, occurring in 7 patients (all endovascular). Younger patients, and those with a defined connective tissue disease (Marfans/LDS) were more commonly in Group A ($P<.001$).

Conclusions: FEVAR is feasible for patients with chronic dissections with arch and TAAA.Visceral vessel access and graft compression resulting from narrow true lumen diameters were not problems in this select population.Favorable sac and lumen morphologic changes coupled with low mortality and complication risk makes this an attractive treatment option.

Author Disclosures: M. J. Eagleton: Cook Medical,Consulting fees or other remuneration (payment)Bolton Medical-,Consulting fees or other remuneration (payment); **R. K. Greenberg:** COOK MEDICAL,Consulting fees or other remuneration (payment); **A. Kitagawa:** Nothing to disclose; **T. M. Mastracci:** Cook Medical,Consulting fees or other remuneration (payment); **E. Roselli:** Cook Medical,Consulting fees or other remuneration (payment) Medtronic,Consulting fees or other remuneration (payment).

PS4.

Biomechanical Rupture Risk Assessment of AAA Made Easier for Clinicians

Joy Roy[1], Jesper Swedenborg[1], Natzi Sakalihasan[2], Alain Nchimi[2], Dittmar Bockler[3], Alexander Hyhlik-Durr[3], Christian Gasser[4]. [1]Dept of Vascular Surgery, Karolinska Hospital/Institute, Stockholm, Sweden; [2]University Hospital of Liege, Liege, Belgium; [3]University of Heidelberg, Heidelberg, Germany; [4]Royal Institute of Technology, Stockholm, Sweden

Objectives: Finite Element (FE) Analysis has been used to estimate peak wall stress(PWS) and peak wall rupture risk(PWRR) of Abdominal Aortic Aneurysms(AAA).

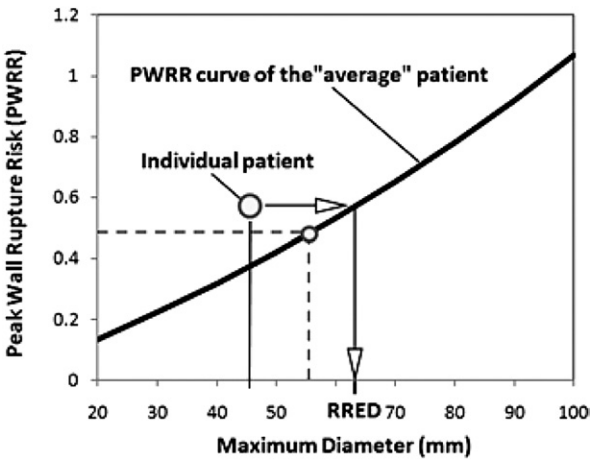

Fig.